

## EAST Search History

Ref #	Hits	Search Query	DBs	Default Operator	Plurals	Time Stamp
L1	28	(US-4765607-\$ or US-4050562-\$ or US-3870629-\$ or US-5836577-\$ or US-5564545-\$ or US-5419423-\$ or US-6398000-\$ or US-4437660-\$ or US-4678072-\$ or US-6827347-\$ or US-6598871-\$ or US-6076648-\$ or US-5709525-\$ or US-5209335-\$ or US-4784274-\$ or US-6495981-\$ or US-5982126-\$ or US-4754362-\$ or US-5719383-\$ or US-4928230-\$ or US-7005818-\$ or US-7034483-\$ or US-6199856-\$).did. or (JP-11116098-\$).did. or (DE-2321654-\$ or US-5253167-\$ or DE-3639755-\$ or EP-720132-\$).did.	USPAT; JPO; DERWENT	OR	OFF	2007/01/12 13:13
L2	6	L1 AND DC	USPAT	OR	OFF	2007/01/12 13:14
L3	1	L1 AND "direct current"	USPAT	OR	OFF	2007/01/12 13:15
L4	0	L1 AND "D.C."	USPAT	OR	OFF	2007/01/12 13:14
L5	9	L1 AND (actuator WITH motor)	USPAT	OR	OFF	2007/01/12 13:15
L6	1	271/180,181,177,176.ccls. AND "direct current motor"	USPAT	OR	OFF	2007/01/12 13:16
S1	643	271/180,181,177,176.ccls.	USPAT	OR	OFF	2007/01/12 13:16
S2	357943	circuitry	USPAT	AND	OFF	2007/01/11 14:05
S3	43	S1 circuitry	USPAT	AND	OFF	2007/01/11 14:05
S4	33	S1 circuitry signal	USPAT	AND	ON	2007/01/11 14:06
S5	5	S1 (circuitry ADJ6 signal)	USPAT	AND	ON	2007/01/11 14:18
S6	3	194/206,207;209/534.ccls. (circuitry ADJ6 signal) tim\$4 (actuator OR pusher)	USPAT	AND	ON	2007/01/11 14:19
S7	7	194/206,207;209/534.ccls. (circuitry ADJ6 signal) tim\$4 (actuator OR pusher)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	AND	ON	2007/01/11 14:40

## EAST Search History

S8	83	("2669998"   "2750949"   "2835260"   "3800078"   "4205780"   "4250806"   "4264808"   "4352988"   "4360034"   "4386432"   "4396902"   "4543969"   "4563771"   "4594664"   "4653647"   "4743974"   "4782328"   "4806709"   "4811004"   "4821332"   "4837842"   "4851616"   "4888812"   "4905840"   "4928094"   "4931782"   "4980543"   "5023782"   "5063599"   "5295196"   "5507379"   "5544043"   "5602933"   "5602936"   "5640463"   "5652802"   "5905810").PN. OR ("6128402").URPN.	US-PGPUB; USPAT; USOCR	OR	OFF	2007/01/11 14:24
S9	876	194/206,207;209/534.ccls.	USPAT; USOCR	AND	ON	2007/01/11 14:41
S10	1379	(S1 S9)	USPAT	OR	OFF	2007/01/11 14:42
S11	32	(S1 S9)	USPAT	AND	OFF	2007/01/11 14:42
S12	49	(US-20050183926-\$ or US-20040161258-\$).did. or (US-5489968-\$ or US-5328168-\$ or US-5897110-\$ or US-4570918-\$ or US-5013026-\$ or US-5445369-\$ or US-6137967-\$ or US-4378938-\$ or US-4551118-\$ or US-4995934-\$ or US-5263707-\$ or US-5538140-\$ or US-5558232-\$ or US-5562399-\$ or US-5685529-\$ or US-5810173-\$ or US-5927926-\$ or US-5975520-\$ or US-6003862-\$ or US-6165113-\$ or US-6192295-\$ or US-6244589-\$ or US-6250631-\$ or US-6384918-\$ or US-6834169-\$ or US-5987251-\$). did. or (US-6019362-\$ or US-5404434-\$ or US-5419545-\$ or US-5427459-\$ or US-5497247-\$ or US-5522589-\$ or US-5531434-\$ or US-5618038-\$ or US-5711520-\$ or US-5808753-\$ or US-6024359-\$ or US-6065748-\$ or US-6253193-\$ or US-6290952-\$ or US-6363488-\$ or US-6389402-\$ or US-6427140-\$ or US-5197723-\$ or US-6213458-\$ or US-5452058-\$ or US-5951005-\$). did.	US-PGPUB; USPAT	OR	OFF	2007/01/11 14:43
S13	8	("5251738"   "5419423").PN. OR ("5564545").URPN.	US-PGPUB; USPAT; USOCR	OR	OFF	2007/01/11 15:30
S14	1	"5411249".PN.	USPAT; USOCR	OR	OFF	2007/01/11 15:35

## EAST Search History

S15	87	("3148879"   "3613560"   "3627094"   "3655186"   "3917260"   "3918359"   "4011931"   "4045017"   "4088071"   "4428503"   "4540081").PN. OR ("4678072").URPN.	US-PGPUB; USPAT; USOCR	OR	OFF	2007/01/11 16:16
S16	50	S15 AND ((sensor signal) WITH (actuator motor))	USPAT	OR	ON	2007/01/11 16:17
S17	42	S15 AND ((sensor signal) ADJ5 (actuator motor))	USPAT	OR	ON	2007/01/11 16:17
S18	40	S15 AND ((sensor signal) ADJ5 (actuator motor)) AND (load\$3 current force)	USPAT	OR	ON	2007/01/11 16:29
S19	4	S15 AND ((sensor signal) ADJ5 (actuator motor) WITH (load\$3 current force))	USPAT	OR	ON	2007/01/11 16:18
S20	51	S15 AND (S1 S9 S12)	USPAT	OR	OFF	2007/01/11 16:19
S21	2	S20 AND S19	USPAT	OR	OFF	2007/01/11 16:20
S22	1	("5,299,977").PN.	USPAT; USOCR	OR	OFF	2007/01/11 16:29
S23	1102	318/434.ccls.	USPAT	OR	OFF	2007/01/12 08:32
S24	4	318/434.ccls. AND ((sens\$4 ADJ5 (load current force)) AND ((mov\$4 transl\$4) ADJ5 (actuator piston)))	USPAT	OR	OFF	2007/01/12 08:35
S25	0	318/434.ccls. AND ((sens\$4 ADJ5 (load current force)) AND ((mov\$4 transl\$4) ADJ5 (actuator piston))) AND ("271"/\$.ccls "399"/\$.ccls. "298"/\$.ccls.)	USPAT	OR	OFF	2007/01/12 08:34
S26	8	318/434;388/903;361/23-34.ccls. AND ((sens\$4 ADJ5 (load current force)) AND ((mov\$4 transl\$4) ADJ5 (actuator piston)))	USPAT	OR	OFF	2007/01/12 08:42

## EAST Search History

S27	49	(US-20050183926-\$ or US-20040161258-\$).did. or (US-5489968-\$ or US-5328168-\$ or US-5897110-\$ or US-4570918-\$ or US-5013026-\$ or US-5445369-\$ or US-6137967-\$ or US-4378938-\$ or US-4551118-\$ or US-4995934-\$ or US-5263707-\$ or US-5538140-\$ or US-5558232-\$ or US-5562399-\$ or US-5685529-\$ or US-5810173-\$ or US-5927926-\$ or US-5975520-\$ or US-6003862-\$ or US-6165113-\$ or US-6192295-\$ or US-6244589-\$ or US-6250631-\$ or US-6384918-\$ or US-6834169-\$ or US-5987251-\$). did. or (US-6019362-\$ or US-5404434-\$ or US-5419545-\$ or US-5427459-\$ or US-5497247-\$ or US-5522589-\$ or US-5531434-\$ or US-5618038-\$ or US-5711520-\$ or US-5808753-\$ or US-6024359-\$ or US-6065748-\$ or US-6253193-\$ or US-6290952-\$ or US-6363488-\$ or US-6389402-\$ or US-6427140-\$ or US-5197723-\$ or US-6213458-\$ or US-5452058-\$ or US-5951005-\$). did.	US-PGPUB; USPAT	OR	OFF	2007/01/12 08:42
S28	0	S27 AND ((sens\$4 ADJ5 (load current force)) AND ((mov\$4 translat\$4) ADJ5 (actuator piston)))	USPAT	OR	OFF	2007/01/12 08:42
S29	11	((("5209335") or ("5709293") or ("11116098") or ("2321654") or ("2083537") or ("2066350") or ("0720132") or ("5756985")).PN.	USPAT; USOCR	OR	OFF	2007/01/12 08:47
S30	33	((("5209335") or ("5709293") or ("11116098") or ("2321654") or ("2083537") or ("2066350") or ("0720132") or ("5756985")).PN.	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2007/01/12 08:47
S31	1	("9426341").PN.	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2007/01/12 08:53

## EAST Search History

S32	0	("29426341").PN.	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2007/01/12 08:53
S33	20	((("2590704") or ("2269205") or ("5253167") or ("2114549") or ("4813475")).PN.	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2007/01/12 08:54
S34	2	((("5419423") or ("4678072"))).PN.	USPAT; USOCR	OR	OFF	2007/01/12 08:57
S35	1	("4544149").PN.	USPAT; USOCR	OR	OFF	2007/01/12 09:23
S36	2	("0720132").PN.	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2007/01/12 09:29
S37	0	"720132".pn.	USPAT	OR	OFF	2007/01/12 09:29
S38	4	"720132".pn.	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2007/01/12 09:30
S39	1	("5719383").PN.	USPAT; USOCR	OR	OFF	2007/01/12 09:30
S40	36	("3937925"   "4413738"   "4589712"   "4660168"   "4694963"   "4772781"   "4813475"   "4885676"   "4928230"   "4992647"   "5019249"   "5064999"   "5105229"   "5180156"   "5253167"   "5301131"   "5359285"   "5386104"   "5389773"   "5452962"   "5468941").PN. OR ("5719383").URPN.	US-PGPUB; USPAT; USOCR	OR	OFF	2007/01/12 09:41
S41	20	S40 AND sensor	USPAT	OR	OFF	2007/01/12 09:42
S42	22	S40 AND sensor	USPAT	OR	ON	2007/01/12 10:10
S43	2	S40 AND ((sens\$4 signal) WITH fault\$4)	USPAT	OR	ON	2007/01/12 09:43

## EAST Search History

S44	643	271/180,181,177,176.ccls.	USPAT	OR	OFF	2007/01/12 10:13
S45	7	(S44 194/206,207;209/534.ccls. S27 S23) AND (signal WITH ((actuator piston) ADJ5 (load current)))	USPAT	OR	ON	2007/01/12 10:13
S46	8	(S44 194/206,207;209/534.ccls. S27 S23) AND (signal WITH ((actuator piston) ADJ5 (load current)))	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2007/01/12 10:16
S47	0	("2005/0183926").URPN.	USPAT	OR	OFF	2007/01/12 10:13
S48	8	(S44 194/206,207;209/534.ccls. S27 S23) AND (signal WITH ((actuator) ADJ5 (load current)))	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2007/01/12 10:33
S49	9	(S44 194/206,207;209/534.ccls. S27 S23) AND ((signal controller) WITH ((actuator piston) ADJ5 (load current)))	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2007/01/12 10:16
S50	1	(S44 194/206,207;209/534.ccls. S27 S23) AND (\$stacking WITH load WITH actuator)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2007/01/12 10:34
S51	1	(S44 194/206,207;209/534.ccls. S27 S23) AND (stacking WITH load WITH actuator)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2007/01/12 10:34
S52	1	(S44 194/206,207;209/534.ccls. S27 S23) AND (stacking SAME load WITH actuator)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2007/01/12 10:34

## EAST Search History

S53	3	(S44 194/206,207;209/534.ccls. S27 S23) AND (stacking AND (load WITH actuator))	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2007/01/12 10:38
S54	1	("6422458").PN.	USPAT; USOCR	OR	OFF	2007/01/12 10:37
S55	3	(S44 194/206,207;209/534.ccls. S27 S23) AND (stacking WITH (signal WITH actuator))	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2007/01/12 10:43
S56	42	("3917260"   "3977669"   "4000892"   "4011931"   "4037703"   "4050562"   "4106767"   "4348656"   "4418824"   "4513880"   "4556139"   "4722519"   "4731523"   "4784274"   "4807736"   "4807866"   "4809966"   "4809967"   "4834230"   "4844446"   "4905839"   "4905840"   "5013026"   "5014857"   "5020110"   "5116037"   "5161736"   "5205481"   "5254841"   "5314177"   "5322275"   "5344135"   "5388817"   "5419423"   "5421443"   "5533605"   "5564545"   "5564691"   "5624017"   "5639081"   "5641157"   "5662202").PN.	US-PGPUB; USPAT; USOCR	OR	OFF	2007/01/12 10:40
S57	45	("3917260"   "3977669"   "4000892"   "4011931"   "4037703"   "4050562"   "4106767"   "4348656"   "4418824"   "4513880"   "4556139"   "4722519"   "4731523"   "4784274"   "4807736"   "4807866"   "4809966"   "4809967"   "4834230"   "4844446"   "4905839"   "4905840"   "5013026"   "5014857"   "5020110"   "5116037"   "5161736"   "5205481"   "5254841"   "5314177"   "5322275"   "5344135"   "5388817"   "5419423"   "5421443"   "5533605"   "5564545"   "5564691"   "5624017"   "5639081"   "5641157"   "5662202").PN. OR ("6199856").URPN.	US-PGPUB; USPAT; USOCR	OR	OFF	2007/01/12 10:41

## EAST Search History

S58	1	(S44 194/206,207;209/534.ccls. OR S27 OR S23) AND (cassette piston actuator circuit\$4 signal)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	AND	ON	2007/01/12 10:44
S59	1	(S44 194/206,207;209/534.ccls. OR S27 OR S23) AND (cassette piston actuator circuit\$4)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	AND	ON	2007/01/12 10:44
S60	1	(S44 194/206,207;209/534.ccls. OR S27 OR S23) AND (cassette piston actuator signal)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	AND	ON	2007/01/12 10:44
S61	5	(S44 194/206,207;209/534.ccls. OR S27 OR S23) AND (piston actuator signal)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	AND	ON	2007/01/12 10:44
S62	115	(S44 194/206,207;209/534.ccls. OR S27 OR S23) AND (actuator signal)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	AND	ON	2007/01/12 10:45
S63	41	(S44 194/206,207;209/534.ccls. OR S27 OR S23) AND (actuator WITH signal)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	AND	ON	2007/01/12 10:45